REMARKS

As a preliminary matter, Applicants note that Examiner initially refers to a "Laurilla" reference in the rejection of Claim 16 on page 7 of the current Office Action. However, no such "Laurilla" reference had previously been introduced or listed in Examiner's "Notice of References Cited", and Examiner refers to the Testani reference in the body of the rejection of Claim 16 rather than any "Laurilla" reference. Accordingly, it is Applicants understanding that Examiner intended to reject Claim 16 based on **Testani** in view of Bomze, and Völkel, and **not** based on **Laurilla** in view of Bomze, and Völkel.

As another preliminary matter, the Examiner has objected to Fig. 1 as being poorly labeled. Applicants have amended Fig. 1 to add labels to the elements in Fig. 1 in order to make the figure easier to understand, as requested by the Examiner. Accordingly, Applicants respectfully assert that Fig. 1 is now in acceptable form. Therefore, Applicants respectfully request the Examiner withdraw the objection to Fig. 1.

The Examiner has rejected Claims 13 and 17-19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,852,506 to Testani et al. ("Testani") in view of U.S. Patent Application Pub. No. 2003/0181201 to Bomze et al. ("Bomze"). The Examiner has also rejected Claims 14 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze, and further in view of U.S. Patent No. 6,134,426 to Völkel ("Völkel"). In addition, the Examiner has rejected Claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze, and further in view of U.S. Patent No. 3,803,495 to Reynolds ("Reynolds"). The Examiner has also rejected Claims 20-22 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze, and further in view of U.S. Patent Application Pub. No. 2003/0118197 to Nagayasu et al. ("Nagayasu"). In addition, the Examiner has rejected Claims 23-25 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze and Nagayasu, and further in view of U.S. Patent No. 6,209,127 to Mori et al. ("Mori").

Claim 13 stand currently amended in part to include the language of Claims 14 and 15, and Claims 14 and 15 stand currently canceled. Claims 16, 17, and 20-25 also stand currently amended, and Claims 18 and 19 also stand currently canceled. Claims 1-12 stand previously canceled. Claims 13, 16, 17, and 20-25 are currently pending.

The following remarks are considered by applicant to overcome each of the Examiner's outstanding rejections to current Claims 13, 16, 17, and 20-25. An early Notice of Allowance is therefore requested.

I. SUMMARY OF RELEVANT LAW

The determination of obviousness rests on whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. In determining obviousness, four factors should be weighed: (1) the scope and content of the prior art, (2) the differences between the art and the claims at issue, (3) the level of ordinary skill in the art, and (4) whatever objective evidence may be present. Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. The Examiner carries the burden under 35 U.S.C. § 103 to establish a prima facie case of obviousness and must show that the references relied on teach or suggest all of the limitations of the claims.

II. REJECTION OF CLAIMS 13, 16, AND 17 UNDER 35 U.S.C. § 103(A) BASED ON TESTANI IN VIEW OF BOMZE, VÖLKEL, AND REYNOLDS

On pages 3, 6, and 7 of the current Office Action, the Examiner rejects Claims 13, 16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze, Völkel, and Reynolds. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Amended, independent Claim 13 states, in part:

> "a memory for storing predetermined frequency ranges within which a transmitter search is to be performed;
>
> "a transmitter search unit for carrying out an infrared transmitting frequency **search over all receivable frequencies within** the predetermined **frequency ranges** stored in the memory...." (emphasis added).

Accordingly, Claim 13 now requires that the infrared headphone/hearing aid can identify **unknown** infrared frequencies by means of the transmitter search unit.

The transmitter search unit will perform a search on **all receivable infrared frequencies** which are within the predetermined frequency ranges as stored in the memory.

Testani discloses an information providing system based on an infrared communication. Different transmitters can transmit over various channels. However, all channels are **known** to the receiving units such that a user only needs to choose between several **known channels**. These channels can be set by means of the headset. Thus, Testani is **not** related to the situation when infrared transmitters are available which transmit at **frequencies** which are **not known** to the receiving device.

As such, Testani **fails** to disclose an infrared headphone/hearing aid which can identify **unknown** infrared frequencies by means of a transmitter search unit that performs a search on **all receivable infrared frequencies** which are within the predetermined frequency ranges as stored in the memory.

While Examiner admits that Testani fails to disclose a transmitter search unit, Applicants wish to point out that any search unit incorporated into the disclosure of Testani would **necessarily** have to search the **known channels** of Testani. Thus, combining a transmitter search unit with Testani would **at best** allow for a search of a **channel range**. That search would, by necessity, only include the **specific frequencies** of each channel, and would **not** include **all receivable infrared frequencies within** the predetermined **frequency ranges**. As such, it is **impossible** to incorporate into Testani any transmitter search unit that performs a search on **all receivable infrared frequencies** which are **within** the predetermined **frequency ranges** as stored in the memory, as required by Claim 1.

Bomze describes a mobile device for electronic commerce. This mobile device comprises an **RF (radio frequency)** tuner. The tuner is used to supervise the frequency modulation or the amplitude modulation as well as to select a specified frequency. The tuner can search within static and dynamically defined frequency ranges (cf. Bomze, ¶ [0030]).

However, as stated above, Bomze relates to **radio frequency** communication, and is **not** related to **infrared** communication. Thus, Bomze **fails** to disclose a transmitter search unit for carrying out an **infrared** transmitting frequency search. Further, one of ordinary skill in the art would find **no motivation** to combine the

radio frequency teachings of Bomze with any **infrared** communication teachings of Testani, as the technologies are different and there is not reasonable expectation of success.

Further, as discussed above, even one of ordinary skill in the art would find motivation to combine the tuner of Bomze with the infrared transmitting **channels** of Testani (which Applicants dispute), the combination would **necessarily** provide for a search of the **known infrared** transmitting **channels** of Testani. Thus, combining the tuner of Bomze with Testani would **at best** allow for a search of a **channel range**. That search would, by necessity, only include the **specific frequencies** of each channel, and would **not** include **all receivable infrared frequencies within** the predetermined **frequency ranges**. Thus, it is **impossible** to incorporate the tuner of Bomze into Testani so as to arrive at a device that performs a search on **all receivable infrared frequencies** which are **within** the predetermined **frequency ranges** as stored in the memory, as required by Claim 1. As such, any combination of Bomze with Testani would **fail** to arrive at the invention of amended Claim 13.

Völkel discloses a **radio** receiver having a latching-in unit for latching to a specified frequency. Furthermore, this document discloses a switch for enabling the transmitter search. However, this document is only related to an **RF** receiver, and **not** to an **infrared** receiver.

It is important to note that an **infrared** receiver has to cope with different problems than an **RF** receiver. In particular, certain fluorescent lamps may emit infrared radiation which could influence or disturb the reception of infrared receivers. Therefore, it is not obvious to use information from RF tuners in an infrared receiver.

Thus, one of ordinary skill in the art would find **no motivation** to combine the **radio** receiver teachings of Völkel with any **infrared** receiver teachings of Testani, as the technologies are different and there is not reasonable expectation of success.

Furthermore, none of the references to which Examiner cites describes a transmitter search unit which performs an **infrared** transmitting frequency search for **all receivable infrared frequencies within** the predetermined **frequency range** as stored in the memory, as required by Claim 1. In fact, none of the references describe performing any **infrared** transmitting frequency search whatsoever, and Examiner does not assert otherwise. With the transmitting frequency search unit of Claim 13, it is possible to search

not only for the **known** frequencies or frequency channels, **but also** for frequencies or frequency channels which are **not known** to the receiving unit (the headphone/hearing aid).

For all the reasons discussed above, it is **impossible** to combine the cited references so as to arrive at the invention of Claim 1.

Accordingly, Applicants respectfully assert that Examiner has failed to establish a prima facie case of obviousness of independent Claim 13, and corresponding Claims a6 and 17 because they are each ultimately dependent from Claim 13. Therefore, Applicants respectfully request that Examiner remove the rejection of Claims 13, 16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,852,506 to Testani et al. in view of U.S. Patent Application Pub. No. 2003/0181201 to Bomze et al., U.S. Patent No. 6,134,426 to Völkel, and U.S. Patent No. 3,803,495 to Reynolds.

III. Rejection of Claims 20-22 Under 35 U.S.C. § 103(a) Based on Testani In View of Bomze, Völkel, Reynolds, and Nagayasu

On page 8 of the current Office Action, the Examiner rejects Claims 20-22 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze, and Nagayasu. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Claims 20-22 are dependent upon Claim 13. As Claim 13 is allowable, so must be Claims 20-22. Accordingly, Applicants respectfully assert that Examiner has failed to establish a prima facie case of obviousness of Claims 20-22. Therefore, Applicants respectfully request that Examiner remove the rejection of Claims 20-22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,852,506 to Testani et al. in view of U.S. Patent Application Pub. No. 2003/0181201 to Bomze et al., U.S. Patent No. 6,134,426 to Völkel, and U.S. Patent No. 3,803,495 to Reynolds, and further in view of U.S. Patent Application Pub. No. 2003/0118197 to Nagayasu et al.

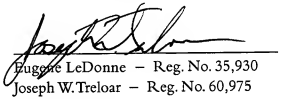
IV. REJECTION OF CLAIMS 23-25 UNDER 35 U.S.C. § 103(A) BASED ON TESTANI IN VIEW OF BOMZE, VÖLKEL, REYNOLDS, NAGAYASU, AND MORI

On page 11 of the current Office Action, the Examiner rejects Claims 23-25 under 35 U.S.C. § 103(a) as being unpatentable over Testani in view of Bomze, Nagayasu, and Mori. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Claims 23-25 is dependent upon Claim 13. As Claim 13 is allowable, so must be Claims 23-25. Accordingly, Applicants respectfully assert that Examiner has failed to establish a prima facie case of obviousness of Claims 23-25. Therefore, Applicants respectfully request that Examiner remove the rejection of Claims 23-25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,852,506 to Testani et al. in view of U.S. Patent Application Pub. No. 2003/0181201 to Bomze et al., U.S. Patent No. 6,134,426 to Völkel, U.S. Patent No. 3,803,495 to Reynolds, and U.S. Patent Application Pub. No. 2003/0118197 to Nagayasu et al., and further in view of U.S. Patent No. 6,209,127 to Mori et al.

Based upon the above remarks, Applicant respectfully requests reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,



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